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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,277	03/10/2004	Kazunari Aoyama	392.1882	9384
21171	7590	03/30/2005	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			RO, BENTSU	
			ART UNIT	PAPER NUMBER
			2837	

DATE MAILED: 03/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/796,277

Applicant(s)

AOYAMA ET AL.

Examiner

Bentsu Ro

Art Unit

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4 and 5 is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☒ Claim(s) 3 and 6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 8/3/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## FIRST OFFICE ACTION

1. Drawing correction is required as follows:

Applicant should label Figs. 1 and 2 as "prior art".

2. The following is a quotation of the appropriate paragraphs of 35

U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims are rejected under 35 U.S.C. 102(b) as being clearly anticipated by  
Loerch US Patent No. 4,632,612.

Loerch teaches the same subject matter as claimed, see the following  
comparison chart.

<p>Claim 1. A numerical controller having a numerical control section that outputs movement commands</p> <p>and a motor control section that controls motors according to the movement commands from the numerical control section,</p>	<p>Fig. 5 shows a numerical control circuit having a numerical control section, such as the data processing unit 46;</p> <p>Fig. 5 shows a spindle drive motor 12; it is noted that the reference numeral 12 symbolically show a spindle drive motor 12, the motor driver circuit should also be inside the box 12 for at least the following reasons:</p> <p>(1) the data processing unit cannot drive the motor because the processing unit simply cannot provide high drive current and high drive voltage to the motor;</p> <p>(2) Fig. 5 show a high level control circuit, the high level control circuit usually shows symbolic boxes, a high level control circuit does not show a physical embodiment of</p>
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<p>an interface unit</p> <p>for receiving signals from sensors and sending the received signals to the motor control section; and</p> <p>a data table storing a correspondence between the sensors and the motors;</p> <p>wherein the motor control section receives the signals from the sensors through the interface and controls the motors corresponding to the correspondence between the sensors and the motors set in the data table.</p>	<p>the circuit; such as a power source, a motor control switch, motor driver circuit (power transistors, capacitors, resistors, inductors, and circuit connection, etc;</p> <p>any connection legs, screws, soldered points, connectors, etc are interface unit (not shown) for connecting one control element to the other control element;</p> <p>Fig. 5 shows a transducer 39; the transducer signal is sent to the spindle drive motor 12 via a register 45 and a data processing unit 46;</p> <p>Fig. 5 shows a data storage table 44; table 44 stores a relationship between the angular position of motor shaft with respect to the angular position of a spindle head 11, see Fig. 1;</p> <p>see column 7, lines 3-29 for the operation; Examiner's notes: Loerch shows a single motor and a single transducer, however, the same scheme can be used with a plurality of motors in a machine tools.</p>
<p>2. The numerical controller of claim 1, wherein the correspondence between the sensors and the motors is one-to-one, one-to-n, or n-to-one (n being an integer greater than or equal to two).</p>	<p>Claim 2 covers all possible combinations of correspondences, therefore, the subject matter of claim 2 is met by Loerch.</p>

4. Claims 3 and 6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2837

5. Claims 4 and 5 are allowable.
6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
7. Any inquiry concerning this communication should be directed to Bentsu Ro at telephone number 571 272-2072.

*Bentsu Ro*  
Bentsu Ro  
Senior Examiner  
Art Unit 2837